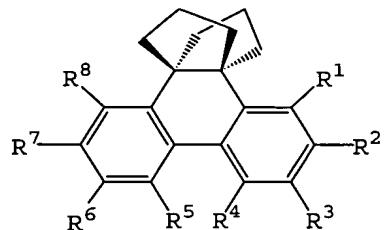


What is claimed is:

1. A phenanthrene compound of formula (I):



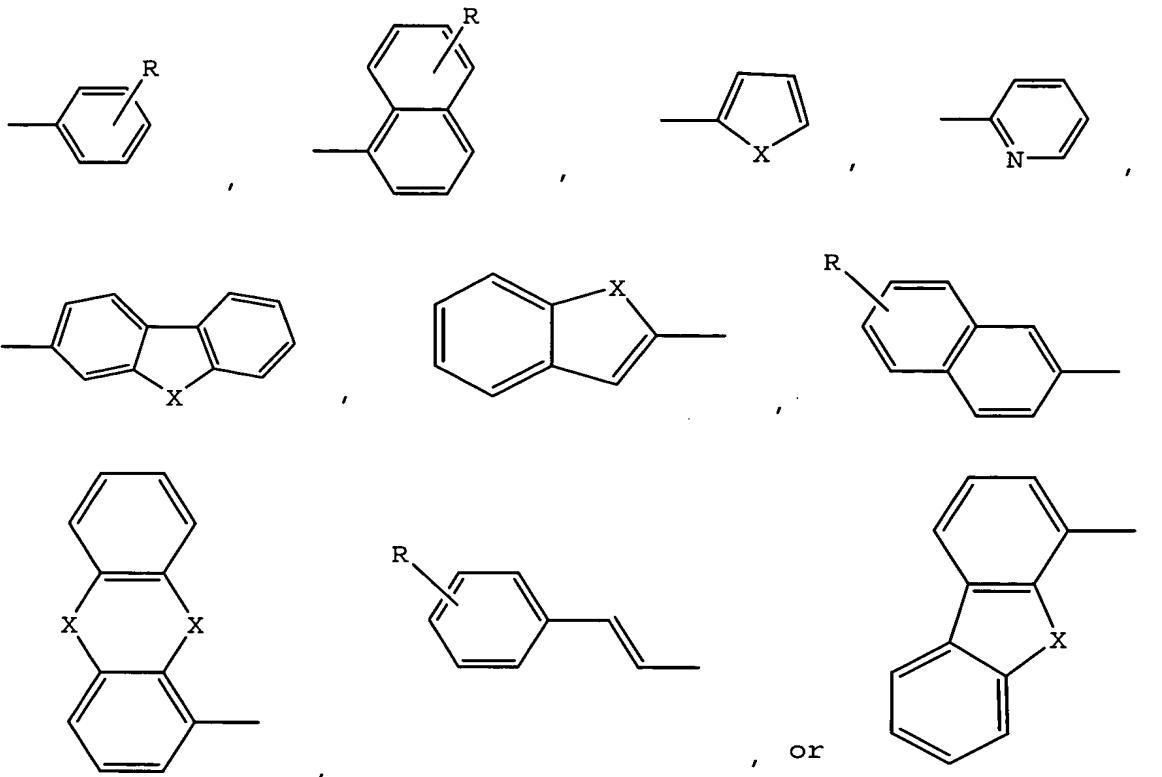
2 Formula (I)

3 wherein, each R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ is
4 independently hydrogen, halogen, C₁₋₆ alkyl, C₁₋₆
5 alkoxy, or a conjugated group.

1. The phenanthrene compound as claimed in claim 1,
2 wherein one of R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ is a
3 conjugated group.

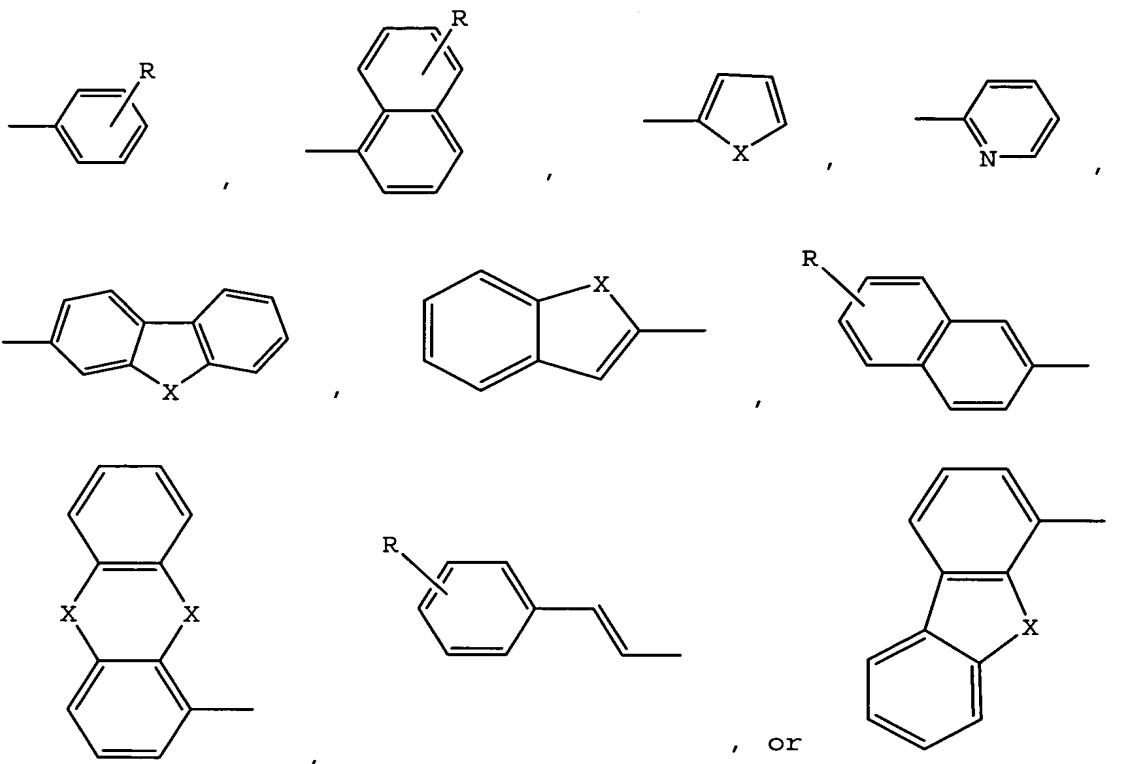
1. The phenanthrene compound as claimed in claim 2,
2 wherein the conjugated group is a substituted or
3 unsubstituted phenyl, substituted or unsubstituted
4 heterocyclic group, substituted or unsubstituted polycyclic
5 phenyl, or substituted or unsubstituted polycyclic
6 heterocyclic group.

1. The phenanthrene compound as claimed in claim 3,
2 wherein the conjugated group is:



wherein R is C₁₋₆ alkyl or C₁₋₆ alkoxy, and X is S, O, or N.

5. The phenanthrene compound as claimed in claim 2,
wherein R² or R⁷ is



3

4 wherein R is C₁₋₆ alkyl or C₁₋₆ alkoxy, and X is S, O, or
5 N.

1 6. The phenanthrene compound as claimed in claim 5,
2 wherein R¹, R³, R⁴, R⁵, R⁶, and R⁸ are hydrogen.

1 7. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each halogen.

1 8. The phenanthrene compound as claimed in claim 7,
2 wherein R² and R⁷ are each bromine.

1 9. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each naphthyl.

1 10. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each ethoxyphenyl.

1 11. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each butylphenyl.